

## Original Article

# Effectiveness of Nutritional Education on Knowledge and Adolescent Attitudes About Stunting in High School

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ARTICLE INFO	ABSTRACT
<p>Article History:</p> <p>Submit : Apr 15, 2022</p> <p>Revised : May 20, 2022</p> <p>Accepted : May 24, 2022</p> <p>Online : June 30, 2022</p> <p>Keywords:</p> <p>Nutrition Education, Stunting, Young Women, Knowledge, Attitude</p>	<p><b>Background:</b> According to the WHO, stunting prevention efforts can start from a young age. Young women can begin to be given knowledge and understanding about the importance of fulfilling nutrition as a teenager. The aim was to increase knowledge and attitude about stunting in adolescent girls at SMA Negeri 5 Manggul village, Lahat district.</p> <p><b>Methods:</b> The method is quantitative with a Quasy Experimental One Group Pretest Posttest design, i.e., before the intervention, a pretest is carried out, then after the intervention, a posttest is carried out. The Sampling is total Sampling. This research was conducted at SMA N 5 Manggul village, Kab. Lahat from July to December 2021.</p> <p><b>Results:</b> There is an increase in knowledge and attitudes, there is an increase of good knowledge values after giving the intervention to 56%, and the value of good attitude at 60%. So it can be concluded that there is an effect of providing nutrition education with booklet media on the knowledge and attitudes of young women. Statistical tests were carried out using the Paired Samples T-test, the value of <math>p = 0.000</math> showed that the level of knowledge about Stunting before and after being given nutrition education through booklet media and showed that there was an effect of providing Nutrition Education through booklet media on the level of knowledge about Stunting (<math>p = 0.000</math>).</p> <p><b>Conclusion:</b> The Benefit is giving the effect of nutrition education with booklet media in increasing knowledge and attitudes about stunting in adolescent girls. With knowledge about stunting in young women, they can change their behaviour in preparing themselves as prospective mothers to prevent Stunting</p>
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## Introduction

Stunting is one of the problems that hinder human development globally. Currently, around 162

million children under the age of five are experiencing Stunting. It is estimated that in 2025 there are 127 million children under the age of five will experience Stunting, WHO, 2013;

Nadya, 2018. According to UNICEF, 2016 Nadya 2018, 56% of stunting children live in ASIA, and a third or 37% live in Africa. Indonesia is still experiencing problems in terms of nutrition and child development. UNICEF stated that around 80% of stunting children are found in 24 developing countries in Asia and Africa. WHO, 2013, Indonesia is the fifth country with the highest prevalence of Stunting after India, China, Nigeria, and Pakistan. Currently, the prevalence of stunting in children under five years in South Asia is around 38%, UNICEF, 2014 in Nadya, 2018 (WHO, 2017).

The harmful impact caused by nutritional problems (Stunting) in the short term is disruption of brain development and intelligence, impaired physical growth, and metabolic disorders in the body. Whereas in the long term, the harmful consequences that can be caused are decreased cognitive abilities and learning achievement, decreased immunity so that it is easy to get sick, and a high risk for the emergence of diabetes, obesity, heart, and blood vessel disease, cancer, stroke, and disability in old age. Moreover, learning achievement and decreased immunity make it easy to get sick and a high risk for the emergence of diabetes, obesity, heart and blood vessel disease, cancer, stroke, and disability in old age—moreover, uncompetitive work quality results in low economic productivity, the Indonesian Ministry of Health, 2016.

The problem of Stunting in Indonesia is currently being pursued to be implemented immediately. As prevention can be done early on, prevention can be started for young

women. Adolescent girls who will experience menstruation can prevent anemia from occurring. If anemia continues during pregnancy, it can cause an unhealthy fetus. Adolescent health problems need attention from the Indonesian government, especially among young women. Adolescent girls are one of the groups prone to malnutrition, and the occurrence of menstruation and infectious diseases in young women is one of the causes. Diseases caused by environmental factors and poor sanitation cause a decreased immune system and stunted growth (Apriluana & Fikawati, 2018; Bhutta et al., 2020; Vilcins et al., 2018). Lahat Regency, South Sumatra Province, is one of the regencies in South Sumatra Province, which is included in the top five high prevalence rates of Stunting in the last two years, the 2018 Rikesdas and 2019 Rikesdas (Rikesdas, 2018).

Knowledge results from "knowing," which occurs after people have sensed a specific object. This sensing occurs through the five human senses. Knowledge of cognition is a binding domain for forming one's actions. Behavior-based knowledge will be more lasting than behavior that is not based on knowledge (Nursalam, 2013). According to (Notoatmodjo, 2014; Titley et al., 2019; Vaivada et al., 2020), attitude is how respondents' opinion about matters related to health, health, and factors related to risk factors. Attitude is a syndrome or collection of symptoms in response to a stimulus or object so that the attitude involves thoughts, feelings, concerns, and other psychiatric symptoms. According to WHO,

stunting prevention efforts can start as early as adolescence. Young women can begin to be given knowledge and understanding about the importance of fulfilling nutrition as a teenager. By paying attention to the background of the problem above, the researchers are interested in examining the effect of providing nutrition education on the level of knowledge and attitudes in preventing Stunting in adolescent girls at SMA Negeri 5 Manggul Village Lahat Regency. The study aimed to increase knowledge and attitudes about stunting in adolescent girls at SMA Negeri 5 Manggul village, Lahat district. Specific objectives are to determine the effect of nutrition education in increasing knowledge and attitudes about stunting in adolescent girls and to find out the difference in knowledge about Stunting before and after nutrition education is carried out with booklet media.

## Method

This research design is quantitative with Quasy Experimental One Group Pretest Posttest design, i.e., before providing nutrition education using booklet media is carried out Pretest. After the counseling intervention using Booklet media is carried out posttest. The population is the whole of the object of research or the object under study (Notoatmodjo, 2010). The research population was all the young women of SMA Negeri 05 Lahat. The research sample amounted to 50 respondents. The independent variable is nutrition education, and the dependent

variable is Knowledge, Adolescent Attitudes. Research has gone through ethical tests. The sampling technique in this study is total Sampling. Data processing obtained univariate and bivariate using Paired Sample T-test statistics.

## Results

Analyzed univariately are presented in the following table

Table 1. Distribution of Respondents by Age

Age	Frequency	Percent
15 years	7	14.0
16 years	15	30.
17 years	16	32.0
18 years	12	24.0
Total	50	100.0

Based on the table above, the respondents were 50 students consisting: The lowest average age was 15 years: 7 students (14%), and the highest was 18 years: 12 students: (24%).

Table 2. Occupational Distribution of Respondents' Parents

	Frequency	Percent	Valid Percent
Civil servant	18	36.0	36.0
Valid Noncivil Servant	32	64.0	64.0
Total	50	100.0	100.0

The table above shows that most of the respondents' parental occupations are Non-civil servants. As many as 32 (64%) work as private laborers and farmers

**Table 3. Distribution of Respondents' Knowledge About Stunting**

Variable	Category	N	%
Before	Enough less	39	78
		11	22
	Total	50	100
After	Good	28	56
	Enough	22	44
	Total	50	100

Based on the table above, there is a change in the category of knowledge value before and after giving the booklet media intervention. Before giving the intervention, the good category was 0%. After the intervention, the excellent category became 56%.

**Table 4. Distribution of Attitudes about Stunting**

Variable	Category	N	%
Before	Good	0	0
	Enough	28	56
	Less	22	44
	Total	50	100
After	Good	30	60
	Enough	20	40
	Total	50	100

Based on the table above, there is a change in the category of Attitude values before and after giving the booklet media intervention. Before giving the intervention, the attitude with a good score category was 0%. After the intervention, the attitude in the excellent category increased to 60%.

**Table 5. Effect of nutrition education on knowledge**

	Mean	Std deviation	T	Df.	Sig
Pair 1 before After	0,78	0,615	8.957	49	0.000

Based on the table above, it can be seen that the level of knowledge about stunting before and after being given nutrition education through booklet media, a statistical test was carried out using the T Paired Samples Test, the value of  $p = 0.000$  showed that there was an effect of providing Nutrition Education through booklet media on the level of knowledge about Stunting.

**Table 6. The Effect of Nutrition Education on Attitude**

	Mean	SD	T	Df.	Sig
Pair 1 Before After	1,04	0,727	10,11	49	.000

Based on the table above. It can be seen that attitudes about Stunting before and after being given nutrition education through booklet media, statistical tests were carried out using the Paired Samples T-test, the value of  $p = 0.000$  showed that there was an effect of providing nutrition education through booklet media on attitudes about Stunting

## Discussion

Research respondents are young women aged 15-18 years. The characteristics of the most respondents are 17 years old: 16 people (32%), and the lowest is 15

years old: 7 people (14%); according to Suparno, 2001 in Hashanah, 2020, this is a period of great curiosity that makes teenagers find out and will have an impact on their knowledge by using trial and error.

Hasanah, 2020 states that age can affect a person's knowledge because the older he gets, his grasping power and mindset grow (Hasanah, 2020). The occupations of respondents' parents, most of whom are non-civil servants, are laborers and farmers. A parent's occupation (economic status) can affect knowledge. Someone who has an economic status below the average will find it challenging to fulfill the facilities needed to increase their knowledge (Linawati, 2017) in Hashanah 2020. From the T-Test Statistics test results for pretest and posttest knowledge, it is known that the value of Sig. (2-tailed) is  $0.000 < 0.05$ , so we can conclude that there is a significant difference between the level of knowledge about stunting in the pretest and posttest data. Nutrition education with booklet media significantly affects young women's knowledge in SMA 05, Manggul Village, Lahat Regency. This is in line with research conducted by (Sriwiyanti, 2021). Counseling using booklet media effectively increases respondents' knowledge of balanced nutrition. Hasanah, 2020 stated that health education with booklet media significantly affected high school students' knowledge in Probolinggo Regency (Linawati, 2017). His research stated that several factors that affect a person's level of knowledge are education, age, social, culture (tradition), economy, and mass media and information that can

have a short-term influence so that one's knowledge can increase. The higher the education a person gets, the easier it will be for that person to get information; high school is the highest level of education in adolescence (Beal et al., 2018; De Onis et al., 2019; Leroy & Frongillo, 2019).

From the results of the T-Test Statistics for attitudes before and after the intervention, it is known that the value of Sig. (2-tailed) of  $0.000 < 0.05$ , so we can conclude that there is a significant difference in attitudes about Stunting before and after. Nutrition education with booklet media has a significant influence on the attitudes of young women in high school, and this is in line with Simanjuntak, 2019 which states that providing interventions with booklet media can increase the value of respondents' attitudes about 1000 HPK to be good.

Attitude is a reaction that is still closed from a person to a stimulus or object. Attitude is just a person's tendency to take action against an object or a method, so attitude is a view, opinion, response, or assessment, and also a person's feelings towards a stimulus or object accompanied by a tendency to act (Notoatmodjo, 2014). Nutrition education is part of health education, where health education is an activity that helps individuals, groups, and communities to improve their abilities in the form of knowledge, attitudes, and psychomotor to achieve optimal health degrees (Notoatmodjo, 2012).

According to WHO in Notoatmojo, 2013 one strategy for behavior change is to provide information to



increase knowledge so that awareness arises, and in the end, people will behave according to their knowledge. One way to provide information is to conduct nutrition counseling in schools. The provision of information in nutrition education is inseparable from the methods and media used. The method used is the method of giving media booklets (Simanjuntak, 2019)

## Conclusion

The provision of nutrition education with booklet media shows a significant effect on young women's level of knowledge and attitudes about Stunting. There are differences in the knowledge and attitudes of young women before and after being given nutrition education with booklet media, as evidenced by the pretest and posttest scores.

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